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**REMARKS**

Claims 1-13, 15-18 are before the Examiner. Claim 14 is cancelled. Claims 19 to 24 are withdrawn. Claim 1 has been amended so as to clearly point out that the central nitrogen atoms are neither non-pyridinal nor is the central N atoms bonded via a multi-bond to its adjacent atoms, and the terminal N are not bonded to its adjacent atoms by a multi-bond.

The claimed invention is directed toward a novel and unobvious catalyst system comprising an activator and a compound said compound comprising tridentate or tetradentate neutrally charged ligands bonded to metal from Groups 7 – 11 of the Periodic Table. The ligand comprises a terminal pyridinyl group and a central non-pyridinyl group whose N atom is not bonded to its adjacent atoms by a multi-bond. It has been discovered that the novel catalysts of this invention are particularly useful in an oligomerization process.

**Restriction Requirement**

Claims 1 to 24 have been subjected to restriction under 35 USC § 121 to three groups: Group I claims 1-13 and 15 to 18 drawn to a catalyst system; Group II claims 19-21 drawn to a method of polymerizing, and Group 3 claims 22 to 24 drawn to a method of oligomerizing. Applicant respectfully traverses the restriction requirement as the claims are so closely related under a common inventive concept that searching all three classes will be no burden to the Examiner. Applicant respectfully requests that the restriction requirement be withdrawn. Further if the Restriction requirement is not withdrawn, Applicant requests rejoinder of claims 19-24 upon a finding that claims 1-13 and 15 to 18 are patentable.

Applicant confirms their provisional election of Group I, Claims 1 to 13 and 15 to 18, with traverse.

**Objection to the Abstract**

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The Examiner has objected to the abstract suggesting that it is not drawn to the invention as claimed but rather only to the catalyst compounds and requests a representative structure. Applicant respectfully disagrees, however to facilitate prosecution, Applicant has amended the abstract.

#### **Objection to the Specification**

The specification has been amended so as to clarify that which a Schlenk is and so the coefficients for the chemical formulae are subscripts as requested by the Examiner. Support is found in the Schlenk as filed and in the priority document GB0306519.0 which has been incorporated by reference on page 82, paragraph 145, line 7.

#### **Objection to the Claims**

Claims 1-5, 8 and 9 have been objected to regarding various grammatical matters noted by the Examiner. The undersigned expresses her appreciation regarding these matters. The claims have been amended in order to correct these objections. Applicant requests withdrawal of the objection.

#### **Claim rejection under 35U.S.C. § 112**

Claims 2-10 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. The following amendments to the claims have been made: in claim 10 "comprises" has been changed to ---is---. In claims 2-9 the repeating definitions have been removed thereby eliminating any alleged prolixity; claim 1 has been amended to include halocarbyl and hence claims 2-9 are not inconsistent with claim 1.

In view of these amendments it is respectfully submitted that the rejection under 35 U.S.C § 112 is overcome and that the claims particularly point out and distinctly claim the subject matter which Applicants regard as their invention.

Claims 2-5 have also been rejected under 35U.S.C. § 112 because the Examiner asserts that the definitions of R' where there are two R' moieties in the group are self-referential and hence circular. The undersigned respectfully asks for further clarification

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of this rejection. The undersigned will amend the claim as soon the rejection is better understood. Please call the undersigned so a supplemental amendment can be promptly provided.

**Claims Rejections under 35 U.S.C. §102(b) or (e)**

Claims 1, 10, 11, and 15-18 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Nagy et al. (hereinafter referred to as Nagy). This rejection is respectfully traversed. Please note that in every instant, Nagy's compounds contain a central N atom bonded to its adjacent atom by a double bond. No such double bond appears in applicants' claims. It is therefore submitted that our claimed composition is novel over Nagy because of the absence of a double bond. Since the compound is novel over Nagy it is respectfully submitted that the catalyst system is novel. Withdrawal of the rejection is respectfully requested.

Claims 1, 10, 11 and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Wang et al. (hereinafter referred to as Wang). This rejection is respectfully traversed. Please note that in every instant, Wang's compounds contain a central N pyridinal group and the terminal N atoms are bonded to it neighboring atoms by a multi-bond. The claims in this application do not read on a central pyridinal group and such double bonds do not appear in applicants' claims. It is therefore submitted that our claimed composition is novel over Wang because of the absence of the double bond and the absence of a central pyridinal group. Since the compound is novel over Wang it is respectfully submitted that the catalyst system is novel. Withdrawal of the rejection is respectfully requested.

Claims 1, 10, 11 and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Lenges, WO 00/68280 (hereinafter referred to as Lenges). This rejection is respectfully traversed. Please note that in every instant, Lenges' compounds contain a central pyridinal N atom and the terminal N atoms are bonded to it neighboring atoms by a multi-bond. The claims in this application do not read on a central pyridinal group and such double bonds do not appear in applicants' claims. It is therefore submitted that our claimed composition is novel over Lenges because of the absence of the double bond and the absence of a central pyridinal group. Since the compound is novel over Lenges it is

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respectfully submitted that the catalyst system is novel. Withdrawal of the rejection is respectfully requested.

Claims 1, 10, 11 and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Britovsek et al., *Inorg. Chim. Acta* vol. 345 (2003) p. 279-291 (hereinafter referred to as Britovsek). This rejection is respectfully traversed. Please note that in every instant, Britovsek compounds contain a central pyridinal N atom and the terminal N atoms are bonded to it neighboring atoms by a multi-bond. The claims in this application do not read on a central pyridinal group and such double bonds do not appear in applicants' claims. It is therefore submitted that our claimed composition is novel over Britovsek because of the absence of the double bond and the absence of a central pyridinal group. Since the compound is novel over Britovsek it is respectfully submitted that the catalyst system is novel. Withdrawal of the rejection is respectfully requested.

In view of the above amendments and remarks, it is respectfully submitted that this case is in condition for allowance. Prompt notice of allowance is respectfully solicited.

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Date:

10/23/2006

Respectfully submitted,

  
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